

IN THE CLAIMS:

Please consider the claims as follows:

1-22. (Cancelled).

23. (Currently Amended) An apparatus that gathers programs watched data, comprising:

a plurality of terminals connected to corresponding televisions and to a television program delivery system, each of the terminals including a memory that stores program access information;

a receiver coupled to the plurality of terminals, the receiver receiving the program access information, wherein the program access information is stored as programs watched data in a programs watched matrix and is recorded as counts, the counts corresponding to the a number of times a program category is watched at the associated terminal, wherein each of the an associated terminals is assigned a unique programs watched matrix, and wherein the unique programs watched matrix is updated as additional program access information is provided by the associated terminal;

means for creating terminal group information indicating group assignments for the terminals by correlating the programs watched counts with categories of data, wherein the data categories include demographic data, and wherein the data categories are available for providing programming to the terminals; and

means for transmitting the terminal group information to the terminals in a control information stream.

24. (Currently Amended) An apparatus that gathers programs watched data, comprising:

a plurality of terminals connected to corresponding televisions and to a television program delivery system, each of the terminals including a memory that stores program access information;

a receiver coupled to the plurality of terminals, the receiver receiving the program access information, wherein the program access information is stored as programs watched data in a programs watched matrix;

a plurality of databases, wherein each of the plurality of databases receives

information from programs watched matrices, the information including the a terminal address, a group identifier, and program counts, the databases including one or more of viewer profile, account billing, program scheduling and advertisement scheduling databases;

means for creating terminal group information indicating group assignments for the terminals using the programs watched matrices, wherein the means for creating terminal group information further comprises indicating group assignments for the terminals by correlating programs watched counts stored in the programs watched matrices with categories of data, wherein the data categories include demographic data, and wherein the data categories are available for providing programming to the terminals; and

means for transmitting the terminal group information to the terminals in a control information stream.

25-26. (Cancelled).

27. (Currently Amended) An apparatus that gathers programs watched data, comprising:

a plurality of terminals connected to corresponding televisions and to a television program delivery system, each of the terminals including a memory that stores program access information;

a receiver coupled to the plurality of terminals, the receiver receiving the program access information, wherein the program access information is stored as programs watched data in a programs watched matrix,

a controller in the television program delivery system, the controller coupled to the plurality of terminals, the controller issuing a message directing each of the terminals to provide the program access information, wherein the message is a polling request message, the polling request message sent over one of a cable television cable and a telephone line and a response message is returned over one of the cable television cable and the telephone line, and wherein the program access information is provided in the response message, the response message including:

a leading flag;

an address field including the an address of the terminal;

a subscriber region designation that includes a geographical region in which the terminal is located;

a terminal identifier that uniquely identifies the terminal;

an information field that includes a command to provide the program access information; and

a trailing flag;

means for creating terminal group information indicating group assignments for the terminals using the programs watched matrix, wherein the means for creating terminal group information further comprises indicating group assignments for the terminals by correlating programs watched counts stored in the programs watched matrix with categories of data, wherein the data categories include demographic data, and wherein the data categories are available for providing programming to the terminals; and

means for transmitting the terminal group information to the terminals in a control information stream.

28-31. (Cancelled)

32. (Currently Amended) A system that gathers programs watched data in a broadcast television delivery system, comprising:

means for gathering programs watched data from one or more set top terminals in a broadcast television delivery system;

a databases that stores the gathered programs watched data;

means for accessing the stored programs watched data;

means for counting the accessed programs watched data to determine programs watched counts corresponding to the a frequency of programs watched by the one or more set top terminals in the broadcast television delivery system, wherein the programs watched counts are arranged in at least one programs watched matrix;

means for creating set top terminal group information indicating a group assignment for a set top terminal by correlating the programs watched counts with categories of data, wherein the data categories include demographic data, and wherein the data categories are available for providing programming to the set top terminal; and

means for transmitting the set top terminal group information to the set top

terminal in a control information stream that instructs the set top terminal in selecting the programming.

33. (Original) The system of claim 32, further comprising:

means for extracting data from an information field of a program control information signal, wherein the extracted data includes program information;

means for creating a polling request message that directs a set top terminal to initiate transmission of a set top terminal status reports;

means for processing the received set top terminal status reports to produce polling response data; and

means for integrating the polling response data with the extracted data from the information field of the program control information signal.

34. (Original) The system of claim 33, wherein the creating means comprises:

means for reading database files using the access means, wherein the database files are relationally keyed to one another through a set of set top terminal identification numbers individually unique to a particular set top terminal;

means for formatting the polling request message, wherein the formatted polling request message includes at least one set top terminal identification number; and

means for enabling at least one polling command bit in the formatted polling request message, wherein the enabled polling command bit commands transmission of the set top terminal status reports.

35. (Original) The system of claim 33, wherein the processing means comprises:

control receiving means for demodulating the received set top terminal status reports;

means for reading at least one information field in the received set top terminal status reports, wherein the information field includes the programs watched data;

means for sorting the information fields in the received set top terminal status reports by a set top terminal identification number; and

temporary memory means for accumulating the sorted information fields for the set top terminals, wherein the accumulated sorted information fields produce the polling response data.

36. (Original) The system of claim 35, further comprising connection means for linking the processing means to the database, wherein the polling response data may be stored in the database, updating the programs watched matrix.

37. (Original) The system of claim 35, wherein the control receiving means comprises a Radio Frequency demodulator for receiving upstream data transmissions from the set top terminals.

38. (Original) The system of claim 35, wherein the control receiving means comprises a telephone for receiving data transmissions from the set top terminals over telephone lines.

39. (Currently Amended) An apparatus for use in a cable television program delivery system, the cable television delivery system coupled to one or more set top terminals, the one or more set top terminals capable of generating programs watched data, the apparatus comprising:

- means for gathering programs watched data for a set top terminal;

- means for storing the gathered programs watched data in at least one database;

- means for accessing the stored programs watched data; and

- means for counting the accessed programs watched data to determine the a frequency of programs watched by the top terminal, wherein the programs watched counts are arranged by program category and time;

- means for creating terminal group information indicating group assignments for the terminals by correlating the programs watched counts with categories of data, wherein the data categories include demographic data, and wherein the data categories are available for providing programming to the terminals; and

- means for transmitting the terminal group information to the terminals in a control information stream.

40. (Original) The apparatus of claim 39, further comprising:

- means for creating set top terminal group information indicating a group assignment for the set top terminals; and

means for transmitting the set top terminal group information to the set top terminals in a control information stream capable of polling the set top terminals, and wherein the gathering means comprises:

means for generating a polling request message that directs the set top terminals to initiate transmission of a set top terminal status report;

means for receiving the set top terminal status report, wherein the received set top terminal status report contains programs watched information;

means for processing the received set top terminal status reports to produce polling response data; and

means for storing the polling response data.

41. (Original) The apparatus of claim 40, wherein the processing means comprises:

means for demodulating the received set top terminal status report;

means for reading at least one information field in the demodulated set top data, wherein the at least one information field is appended to a set top terminal identification number field;

means for sorting the at least one information field in received set top terminal status reports by set top terminal identification number; and

memory means for accumulating the sorted information fields for the at least one set top terminal, wherein the accumulated sorted information fields produce the polling response data.

42. (Original) The apparatus of claim 40, further comprising means for updating the programs watched data in the storing means with the polling response data, and wherein the counting means comprises:

means for reading the programs watched counts, wherein a separate programs watched count is assigned to different time slots in a day for a program category; and

means for sorting the programs watched counts from highest to lowest.

Claims 43-48 (Cancelled)

49. (Currently Amended) A method for gathering programs watched information, comprising:

gathering programs watched data for set top terminals in a broadcast television program delivery system;

storing the gathered programs watched data in a database;

accessing the stored programs watched data; and

counting the accessed programs watched data to determine the a frequency of programs watched by the set top terminals, wherein programs watched counts are arranged in a programs watched matrix;

means for creating terminal group information indicating group assignments for the terminals by correlating the programs watched counts with categories of data, wherein the data categories include demographic data, and wherein the data categories are available for providing programming to the terminals; and

means for transmitting the terminal group information to the terminals in a control information stream.

50. (Original) The method of claim 49, wherein the set top terminals transmit set top terminal status reports in response to a polling request message produced using a program control information signal, further comprising:

creating the polling request message;

transmitting the polling request message to the set top terminals, wherein the polling request message directs set top terminals to initiate upstream data transmission of the set top terminal status reports over a cable distribution network; and

receiving the set top terminal status reports, wherein the set top terminal status reports include the programs watched data.

51. (Currently Amended) A processor in a cable television program delivery system, the delivery system providing programming to subscriber terminals, comprising:

means for gathering programs watched data for the terminals;

a database that stores the gathered programs watched data;

means for accessing the stored programs watched data;

means for counting the accessed programs watched data to determine the a frequency of programs watched at the terminals, wherein programs watched counts are arranged in a programs watched matrix;

means for creating terminal group information indicating group assignments for

the terminals by correlating the programs watched counts with categories of data, wherein the data categories include demographic data, and wherein the data categories are available for providing programming to the terminals; and

means for transmitting the terminal group information to the terminals in a control information stream that instructs the terminals in selecting the programming, wherein the processor polls the terminals to direct the terminals to provide the programs watched data.

52. (Cancelled)

53. (Previously presented) The processor of claim 51, wherein the gathering means comprises:

means for generating a polling request message that directs the terminals to initiate transmission of terminal status reports;

a receiver that receives the terminal status reports, wherein the received set terminal status reports contain programs watched information;

means for processing the received terminal status reports to produce polling response data; and

a memory that stores the polling response data.

54. (Original) The processor of claim 53, wherein the processing means comprises:

a demodulator that demodulates the received terminal status reports;

means for reading information fields in the demodulated terminal data, wherein the information fields are appended to terminal identification number fields;

means for sorting the information fields in the received terminal status reports by terminal identification number; and

a temporary memory that accumulates the sorted information fields for the terminals, wherein the accumulated sorted information fields produce the polling response data.

55. (Original) The processor of claim 53, further comprising means for updating the programs watched data in the database with the polling response data.

56. (Original) The processor of claim 53, wherein the counting means comprises:
means for reading the programs watched counts, wherein a separate programs watched count is assigned to different time slots in a day for each program category;
means for sorting the programs watched counts from highest to lowest; and
means for matching the sorted programs watched counts with the programs categories, wherein counts of the programs categories are thereby produced.

57. (Original) The processor of claim 56, further comprising:
means for sorting the stored programs watched information by a plurality of program categories;
means for ranking the plurality of program categories by frequency of programs watched in each category, wherein program categories with more programs watched are ranked higher than program categories with less programs watched;
means for selecting a set of highest ranked targeted program categories;
means for choosing individual programs from the set of highest ranked programs categories;
means for packaging the chosen individual programs for transmission to the terminals for display, wherein packages of programs are produced; and
means for transmitting the packages of programs to the terminals over the cable television delivery system.

58. (Original) The processor of claim 57, wherein the terminals have the capability of receiving polling request messages and transmitting polling responses upstream over one of a cable television a cable distribution network in the cable television program delivery system and a telephone line, the polling responses including the programs watched information.

59. (Previously presented) A method for accumulating data in a cable television delivery system from a plurality of set top terminals in a cable television delivery system, comprising:
gathering programs watched data for the set top terminals;
storing the gathered programs watched data in a database;
accessing the stored programs watched data;

counting the accessed programs watched data to determine a frequency of programs watched at the set top terminals, wherein programs watched counts are arranged in a programs watched matrix; and

creating terminal group information indicating group assignments for the terminals by correlating the programs watched count with categories of data, wherein the data categories include demographic data, and wherein the data categories are available for providing programming to the terminals; and

transmitting the terminal group information to the terminals in a control information stream.

60-139. (Cancelled).